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**Description of a new *Philorhizus* species from Greece
and faunistic notes on other species previously described
(Coleoptera, Carabidae, Lebiini)**

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A b s t r a c t : *Philorhizus lompei* spec. nova is described from Greece (northern Peloponnesus: nomos Ahaïa und Korinthia, and southern mainland: nomos Fokída and Fthiótida). Type locality: Erimanthos Mts., Kalentzi, 1000 m (nomos Ahaïa). Members of this micropetrous species are distinguished from other species occurring on the Balkans by very short elytra, special coloration pattern of elytra and special construction of the internal sac of the medianlobe. Illustrations of the habitus and the median lobe and its internal sac of the new species, and of the habitus of *P. alpinus* (MESCHNIGG) and of a species obviously unknown to science are presented. Additionally some new records of other species are given: *P. brandmayri* SCIAKY 1991: new for the Italian mainland (Calabria: Aspromonte); *P. paulo* WRASE 1995: new for the Spanish provinces Lugo (Sierra de Ancares) and Navarra (Sierra de Urbasa).

Key words : Coleoptera, Carabidae, Lebiini, *Philorhizus*, new species, new records, Greece, Italy, Spain.

Introduction

The "Catalogue of Palaearctic Coleoptera, Vol. 1" (KABAK 2003: 425) lists in the genus *Philorhizus* HOPE 1838 six species from the Balkans: *P. alpinus* (MESCHNIGG 1934), *P. crucifer crucifer* (LUCAS 1846), *P. melanocephalus* (DEJEAN 1825), *P. notatus* (STEPHENS 1827), *P. quadrisignatus* (DEJEAN 1825) and *P. sigma* (P. ROSSI 1790), all of them with exception of *P. sigma* are also recorded from Greece (*P. notatus* is missing in KABAK 2003, probably due to the fact, that APFELBECK (1904: 337) recorded Greek localities still under "Turkey", though HIEKE & WRASE (1988: 156) mentioned specimens from Greece).

Amongst material recently collected on the Peloponnesus and southern Greece, were members of a *Philorhizus* species which could not be identified with above mentioned and other known species. Comparisons with representatives of these species including their descriptions showed that they belong to a species previously unknown to science, which will be described in this paper.

Other specimens, belonging to species previously described seem worthy to be mentioned, as their findings give a clearer picture of their real distribution.

Material

Material examined is housed in the collections of institutions or in private collections as listed below:

NME Naturkundemuseum Erfurt, Erfurt, Germany (M. Hartmann)
cFACCH Coll. S. Facchini, Piacenza, Italy
cLEB Coll. Th. Lebenbauer, Seebenstein/Schultern, Austria
cLOM Coll. A. Lompe, Nienburg, Germany
cMARGG Coll. W.A. Marggi, Thun, Switzerland
cWR Coll. D.W. Wrase, Berlin, Germany

Methods and Acknowledgements

Total body length is measured from the tip of the mandibles to the apex of the right elytron as the maximum linear distance; the width of the head (HW) as the maximum linear distance across the head, including the compound eyes; the length of the pronotum (PL) from the anterior to the posterior margin along the midline; the length of the elytra (EL) from the basal margin to the apex of the right elytron as the maximum linear distance; the width of the pronotum (PW) and elytra (EW) at their broadest point; the width of the pronotal base (PBaW) between the tip of the hindangles at insertion of seta.

These measurements, made at a magnification of 32X and using an ocular micrometer in a SM 20 stereobinocular microscope (Carl Zeiss Jena), were combined in ratios or added as follows:

BL: total body length;

PW/PL: width /length of pronotum;

PW/HW: width of pronotum /width of head;

PW/PBaW: width of pronotum/width of the pronotal base;

EL/EW: length/width of elytra;

EW/PW: width of elytra/width of pronotum.

Microsculpture was examined at a magnification of 100X.

Line drawings were prepared by using an ocular grid (15X15 squares) attached to a SM 20 stereobinocular microscope. Dissections were made with standard techniques; genitalia were preserved in Euparal on acetate labels, and pinned beneath the specimens from which they had been removed.

5♂♂ and 5♀♀ of the new species were used for measurements to yield the above-mentioned ratios.

I am pleased to express my appreciation to Michael Hornburg (Berlin) for the digital photographs and I'm greatly indebted to Jon Cooter (Hereford, England) for reading a previous draft of the manuscript on which this paper is based. Special thanks are due to Riccardo Sciak (Milano, Italy) and Sergio Facchini (Piacenza, Italy) who confirmed the identification of one male of *P. brandmayri* SCIAKY from Calabria, to Volker Assing (Hannover, Germany), who very kindly gave me some information about the circumstances of his finding of *P. paulo* WRASE in the Sierra de Anceres and to Ingo Wolf

(Munich, Germany) and Roman Borovec (Nechanice, Czech Republik) for their lucky findings of *P. brandmayri* in Calabria. Last but not least my thanks to the curators and colleagues listed above, for lending specimens.

Results

Philorhizus lompei spec. nova

Type material: Holotype ♂: "Griechenland 1999 West-Peloponnes Erimanthos-Gbg. Kaléntzi, 1000 m leg. W. Apfel 31.5." (cWR). Paratypes: 1 ♀: "GREECE (Pátra) Peloponnisos (Ahaia) Erimanthos Mts. above Kaléntzi 1500 m 27.III.1997 P. Wunderle" (cWR). 4 ♂♂: "GREECE Peloponnes Umg. Xilokastro, 280 m N38°00' E 022°31' 31.III.1997 A. Lompe (NME, cWR). 5 ♂♂, 3 ♀♀: "N38°00'45 E22°11'33 Griechenland Peloponn. Aroania-Geb. Helmos leg. Lompe 30.3.1997" (cLOM). 1 ♀: "GR. Fokis, No.15 45 km SSW Lamia, Oros Giona, 1700m, 38°39'36N, 22°19'32E 17.IV.2000 V. Assing" (cWR). 1 ♂: "Graecia, FTHIOTIDA Parnass, Skicenter 1800 m 27.4.1997 leg. W. Marggi" (cMARGG). 2 ♂♂: "GR, Peloponissos, Prov. Ahaia Aroania Ori, Mt. Helmos 1800-2100m, 20.V.97 leg. T. Lebenbauer" (cLEB).

Diagnosis: An micropterous species of average size in *Philorhizus*, with infuscated head, very short elytra yellowish with a wide dark transverse fascia and completely rounded humeri. Habitus see Fig. 1.

Description: Body length 2.8-3.4 mm; width 1.2-1.5 mm (holotype 3.1 mm and 1.4 mm, respectively).

Colour: Head (with exception of yellowish clypeus, mandibles and mouthparts) reddish piceous, pronotum and appendices light yellowish. Elytral basal third, lateral and apical margins and a large semicircular area around sutural angle testaceous, the remainder infuscated, forming a reddish piceous wide transverse fascia. The dark area bordering the suture extending slightly towards the base of the elytra.

Head large, only somewhat narrower than pronotum (ratio PW/HW in males: 1.10-1.20, Ø 1.14, holotype 1.16; females: 1.10-1.15, Ø 1.13). Eyes fairly large and prominent, about 2 times as long as rectilinearly narrowed tempora. Antennae of medium length, antennomeres 4-11 with fairly short, sparse and fairly strong setae.

Pronotum (Fig. 1) transverse (ratio PW/PL in males: 1.30-1.38, Ø 1.36, holotype 1.38; females: 1.33-1.41, Ø 1.38), widest at about end of anterior fourth (at insertion of lateral seta). Anterior margin distinctly emarginate, anterior angles rounded, moderately projecting forward, from there slightly curved laterally till insertion of lateral seta (here somewhat angulate), from there basad almost rectilinearly narrowed and weakly sinuate before hind angles which are obtuse and angled distinctly forward, at insertion of seta weakly angulate. Base medially more or less rectilinear, laterally toward hind angles oblique (ratio PW/PBaW in males: 1.30-1.39, Ø 1.33, holotype 1.33, females: 1.26-1.33, Ø 1.30). Lateral furrows at anterior angles narrow, becoming explanate toward base and continuing into large basal impression. Medial longitudinal impression deep, terminated before both apical and basal margins. Anterior transverse impression shallow or slightly reduced, posterior transverse impression moderately deepened and connecting both basal impressions.

Elytra very short (ratio EL/EW in males: 1.23-1.28, holotype 1.27; females: 1.22-1.30, Ø 1.26; ratio EW/PW in males: 1.72-1.83, Ø 1.77, holotype 1.72; females: 1.68-1.88, Ø 1.80) with humeri completely rounded, widest at about beginning of posterior fifth.

Striae only suggested, becoming evanescent laterally. Hindwings reduced to small relicts. Microsculpture mesh pattern on head distinct, in both sexes consisting of strongly engraved isodiametric meshes on disk, hence surface fairly dull, on pronotum and elytra weak transverse, weakly impressed, surface somewhat shining.

Median lobe and internal sac structure see Fig. 4.

C o m p a r i s o n s : Differing from the species occurring in the Balkans and also from *P. dacicus* SCIAKY 1991 (Romania, Ukraina) by its very short elytra, by its characteristic coloration and by the different internal sac structure of the median lobe (compare figures in SCIAKY 1991).

P. alpinus (described from the Mt. Chelmos on the Peloponnesus) is, though also wingless, almost unicolorous (only disc of head and middle of abdominal base reddish-piceous), with shiny head and long tempora (as long as eye diameter) and a pronotum much narrower than in *P. melanocephalus*, therefore the name cannot be referred on the taxon dealt with here. I had the occasion to see a female from the Chelmos Mts. (labeled: "N38°00' E022°11' Griechenland Peloponn. Aroania-Geb. Helmos leg. Wunderle 6.6.1996", cLOM) which exactly matches the description except the fact of being unicolorous, undoubtedly due to its slight immaturity. Habitus see Fig. 2.

Similar in habitus and short elytra with *P. liguricus* SCIAKY 1991 (occurring from the Alpi Marittime, Alpi Liguri, Appenino Liguri and Liguria eastward to Emilia), but this species has the transverse elytral fascia mostly only narrow and shaded and differs also in median lobe and structure of the internal sac. Differs from *P. brandmayri* SCIAKY 1991 (Sicily: Monti Peloritani and Monti Nebrodi, and recently also found in southern Calabria) by shorter elytra and a different elytral coloration pattern, as well as a different construction of the internal sac of the median lobe.

SCIAKY (1991) in his revision of the palaearctic *Philorhizus* established two species-groups: those species with antennomeres 4-11 with short, sparse and spiny pubescence and those species with antennomeres 4-11 with long, dense and not spiny pubescence. Though this grouping seems sometimes difficult in making a clear decision, the new species would belong to the first group which includes, beside the Japanese *P. optimus* (BATES 1873), the Caucasian *P. koenigi* (REITTER 1887), *P. nonfriedi* (REITTER 1898) occurring in the Caucasian area and Anatolia, *P. insignis* (LUCAS 1846) from the Canaries and the western mediterranean area, *P. vectensis* (RYE 1873) from western Europe and *P. quadrisignatus* (DEJEAN 1825) from the western mediterranean area, the Balkans and the Near East but *Philorhizus lompei* spec. nova differs from these species in a different elytral coloration pattern and a different construction of the median lobe and its internal sac (compare the figures in SCIAKY 1991).

E t y m o l o g y : This interesting species is dedicated to my colleague and specialist in Carabidae Dr. Arved Lompe (Nienburg, Germany), who collected a part of the type series and also gave helpful advice concerning *Philorhizus*.

D i s t r i b u t i o n : Up to now only known from some localities in the northern Peloponnesus (nomos Ahaïa und Korínthia) and the southern Greek mainland (nomos Fokída and Fthiótida), but likely to be more widely distributed.

***Philorhizus brandmayri* SCIAKY 1991**

I t a l y : Calabria: Aspromonte Mts., Gambárie, 1300-1500 m, 16.-17.V.1995, R. Borovec (2♂♂, cWR; 1♂: determination confirmed by Sciaky). Aspromonte Mts., Sella Entrata, 1350 m, *Fagus* leaf litter, sifted, 3.VI.2001, I. Wolf leg. (3♀♀, cFACCH, cWR).

Described from Sicily (Monti Peloritani and Monti Nebrodi), the above are the first records for the Italian mainland.

***Philorhizus paulo* WRASE 1995**

S p a i n : Cantabria: Picos de Europa, Fuente Dé, western env. Camping el Redondo, 1100 m, broadleaved forest, sifted from leaf litter, 14.-17.VII.1996, Wrase leg. (about 30 exs., cWR and other collections). - Lugo: Sierra de Ancares, Tres Obisbos, peak region, 1760 m, 42°48'04N/6°52'08W, 11.VII.2004, V. Assing leg. sifted from grass and cushion plants (1♂, cLOM). - Navarra: Sierra de Urbasa, Puerto de Urbasa, 930 m, mountain meadow, under big stone, 19/22.VII.1996, Wrase & J. Zaballos leg. (1♂, cWR).

The types were collected at the Rio Izarilla in the south-western environment of Reinosa in Cantabria. The additional findings in the Picos de Europa (Cantabrian Mountains), in the Sierra de Ancares (Lugo) and an isolated occurrence a considerable distance to the west in the Sierra de Urbasa in the Basque Mountains (Navarra) are such that an occurrence in the Pyrenees is not unlikely. First records for the Spanish provinces of Lugo and Navarra.

Philorhizus spec.

G r e e c e : Messinia/Lakonia: Taygetos, Profitis Ilias, 1200 m, 23.IV.1997, W. Marggi & Ch. Huber leg. (1♀, cMARGG).

The female specimen has an extraordinary similarity to *P. alpinus* (MESCHN.) (shiny head by weakly developed microreticulation, slender antennae, tempora as long as eye diameter, pronotum very narrow, micropterous, elytra with humeri completely rounded) but differs by a dark piceous head and by elytra with a distinct, wide, dark transverse fascia at apical half which extends forward along suture, a large semicircular area around sutural angle is testaceous. It does not match any of the compared species and it surely belongs to an undescribed species, but I prefer waiting for more material including males before attempting to describe it. Habitus see Fig. 3.

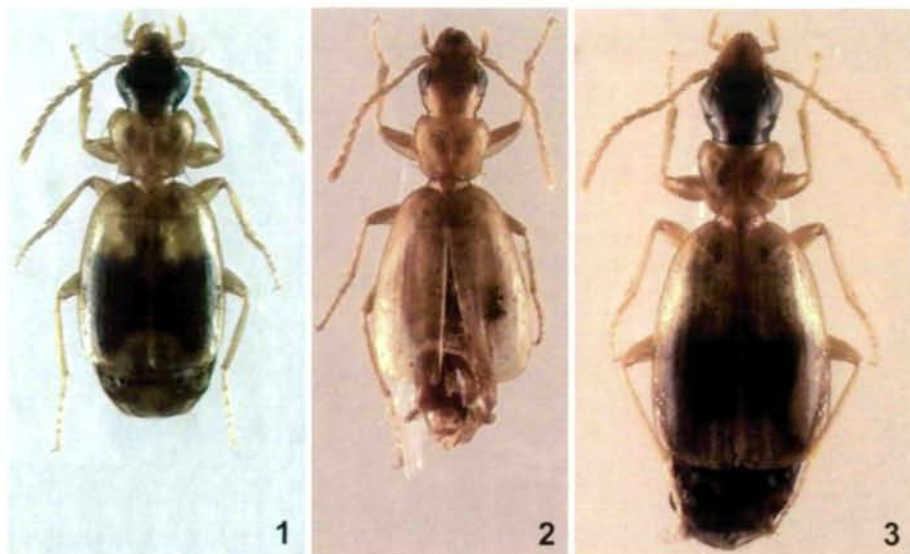
Zusammenfassung

Philorhizus lompei spec. nova wird vom nördlichen Peloponnes (nomos Ahaia und Korinthia) und Südgriechenland (nomos Fokida und Fthiotida) beschrieben. Locus typicus: Erimanthos Mts., Kaléntzi, 1000 m (nomos Ahaia). Die ungeflügelte Art mit sehr kurzen Flügeldecken, einem spezifischem Zeichnungsmuster der Flügeldecken und spezifischem Bau des Innensackes des Medianlobus wird mit Arten verglichen, die auf dem Balkan und im Mittelmeerraum vorkommen. Abbildungen des Habitus und des Medianlobus der neuen Art und Habitusabbildungen von *P. alpinus* (MESCHN.) und von einer offensichtlich noch unbeschriebenen Spezies werden gegeben. Von *P. paulo* WRASE 1995 (neu für die spanischen Provinzen Lugo: Sierra de Ancares und Navarra: Sierra de Urbasa) und von *P. brandmayri* SCIAKY 1991 (neu für das italienische Festland: Calabria: Aspromonte Mts.) werden aktuelle faunistische Daten gemeldet.

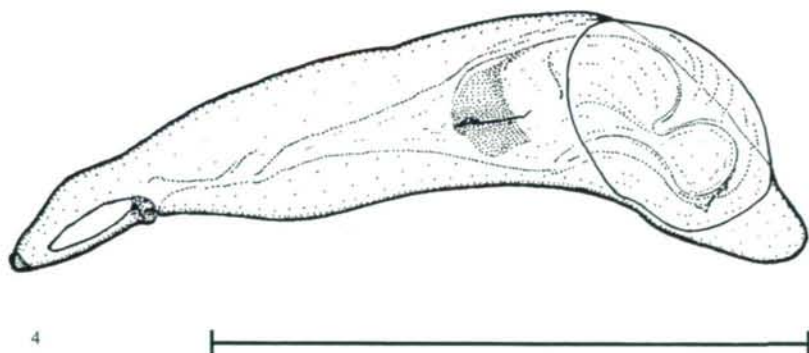
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Figs 1-3: *Philorhizus*, habitus. (1) *P. lompei* spec. nova (holotype). (2) *P. alpinus* (MESCHN.) (Aroania Mts.). (3) *P. spec.* (Taygetos Mts., Profitis Illias).



Figs 4: *Philorhizus lompei* spec. nova (holotype). Median lobe, lateral view. Scale bar 0.5 mm.